LANGLEY RESEARCH CENTER

FACILITY LOCATION
Hampton, Virginia 23665

FACILITY NUMBER
1236

FACILITY NAME
150-Cubic-Foot Space Vacuum Facility

FUNCTIONAL NAME
Space Vacuum Facility, 150-Ft³

TECHNOLOGICAL AREAS
Space environmental effects testing for spacecraft and experiments

INITIAL COST
$ 1,477 K

YR. BUILT
1965

STATUS CODE
Active

ACCUM. COST
$ 1,477 K

NASA B.O.D.
1965

OWNER CODE
NASA

LIFE EXPECT.
Indef.

OPER. CODE
NASA

CONTRACTOR NAME
(If contr. oper.)

POTENTIAL

PLANS

OTHER INFO SOURCES
A Large Ultra High Vacuum Environmental Chamber with Liquid Helium Cooled Walls, N65-27376, RCA Service Company, April, 1965; Vacuum Capabilities of the 150-Cubic-Foot Space Vacuum Facility at the Langley Research Center, Gregory et al., transactions of the 1966 AIAA/IES/ASTM Space Simulation Conference

COGNIZANT ORG.
SYSTEMS ENGINEERING DIVISION

COMPONENT

LOCAL CONTACT FOR
Chief, Research Facilities Engineering Division, Code 56.000; (804) 827-3171
FURTHER INFO

January 1974

3-58
DESCRIPTION

This facility comprises an environmental chamber with the following salient provisions:

- Ultimate pressure of $2 \times 10^{-12}$ torr

- Continuous heat dissipation in the test volume from 1.4 kW at approximately 5°K to 10 kW at approximately 80°K

- Cylindrical working volumes ranging from 4 ft in diameter x 6 ft long to 8 ft in diameter x 12 ft long

- Radiant heat flux levels to approximately 290 W/ft²

- Feedthroughs for observation, instrumentation, power, and linear and rotary motion

- Helium liquefier with a minimum withdrawal rate of 80 liters/hr of liquid helium.